Cincinnati Sub-Zero

FLUID CIRCUIT DISINFECTION/DRY STORAGE PROCEDURE
for Circulating Water Units Utilizing Household Bleach

The following procedure disinfects the fluid circuit in these products. The required tools/supplies are appropriate drain hose(s) and/or hose connector(s), household bleach, distilled water, U.S.P. Grade Propylene Glycol, and the appropriate AC electrical power

Procedure:

1. Drain the water from the reservoir as described in the manual.
2. Turn unit **off ("O" position)**.
2. Fill the reservoir with the appropriate amount of household bleach per the below chart.

UNIT	BLEACH	WATER
Blanketrol 222R	227 Milliliters	7.6 Liters
Blanketrol 233	227 Milliliters	7.6 Liters
Hemotherm 400MR	400 Milliliters	12.9 Liters
Hemotherm 400CE	400 Milliliters	12.9 Liters
Norm-O-Temp 111W	168 Milliliters	5.4 Liters
ECMO Heater 333W	70 Milliliters	2.3 Liters
ElectriCool II	29 Milliliters	321 Milliliters
MicroTemp LT	27 Milliliters	873 Milliliters

Chemical Cleaning Circulation Chart

UNIT	MODE	TEMPERATURE	DURATION
Blanketrol 222R	Heating	38°C	5 Minutes
Blanketrol 233	Heating	38°C	5 Minutes
Hemotherm 400MR	Heating and Cooling	38°C and 24ºC	5 Minutes
Hemotherm 400CE	Heating and Cooling	38°C and 24ºC	5 Minutes
Norm-O-Temp 111W	Heating	38°C	5 Minutes
ECMO Heater 333W	Heating	38°C	5 Minutes
ElectriCool II	Cooling	13°C	5 Minutes
MicroTemp II	Heating	38°C	5 Minutes
MicroTemp LT	Heating	38°C	5 Minutes

3. Fill the reservoir with warm distilled water.
4. Turn the unit on and circulate per the Chemical Cleaning Circulation Chart (above).
5. Drain the unit as instructed in Step #1.
6. Repeat Steps 3-6 three (3) times.
7. Rinse the unit three (3) times as described in Steps 4-6. Be sure to omit the household bleach (sodium hypochlorite).
8. After the third rinse, drain the unit and fill the reservoir with distilled water and circulate.
9. Check the water with pH strips or other appropriate test method for detecting bleach. If bleach is detected, repeat steps 3 B, C, and D.
10. If unit is to be **returned to service**, once no bleach is detected, add the appropriate amount of U.S.P. Grade Propylene Glycol to the water reservoir per the following chart:

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UNIT	U.S.P. Grade Propylene Glycol Per Unit
Blanketrol 222R	16 ounces (500cc)
Blanketrol 233	16 ounces (500cc)
Hemotherm 400MR	16 ounces (500cc)
Norm-O-Temp 111W	12 ounces (340cc)
ECMO Heater 333W	5 ounces (140cc)
ElectriCool II	4 ounces (100cc)
Micro-Temp LT	2 ounces

11. Continue to fill the water reservoir with distilled water.
12. If unit is being **placed in dry storage**, continue with procedure.
13. When all fluid has been removed from the unit, disconnect the drain hose(s) and wipe unit clean.
14. Unit is now ready for storage. Refer to the manual for specifications for storage conditions.
15. Document unit maintenance.

When you are ready to return unit to service, replenish the reservoir(s) with distilled water. Perform all the checks as described in the respective Manual.